REMARKS

Favorable consideration and allowance are requested for claims 1-16 in view of the following remarks.

Status of the Application

Claims 1-16 are pending in this application. The specification was objected to due to a minor informality. Claim 2 was rejected under 35 U.S.C. § 112, ¶ 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. Claim 14 was rejected under 35 U.S.C. § 102(b) as being anticipated by document Japanese Patent Publication No. 2000-19259 to Kojima (the "Kojima publication"). Claims 1-11, 13, 15, and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kojima publication in view of Japanese Patent Publication No. 2001-189926 to Shigeo (the "Shigeo publication"). Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kojima publication in view of the Shigeo publication and further in view of U.S. Patent No. 6,163,022 to Yasui et al. (the "Yasui patent"). Claims 1, 2, 14, and 16 have been amended. A minor amendment has been made to the specification.

Amendment to the Specification

The Examiner objected to the specification due to a typographical error. This error has been corrected. No new matter has been added.

Rejection under 35 U.S.C. § 112, ¶ 2

Claim 2 was rejected for having an insufficient antecedent basis for the limitation "the infrared light." In response, claim 2 has been amended.

Rejection under 35 U.S.C. § 102(b)

According to the Examiner, the Kojima publication anticipates claim 14. In response, Applicant respectfully asserts that claim 14, as amended, is not anticipated by the Kojima publication and, therefore, requests that the rejection of this claim be withdrawn.

Rejection under 35 U.S.C. § 103(a)

According to the Examiner, the Kojima publication in view of the Shigeo publication renders obvious each of claims 1-11, 13, 15, and 16. In response, Applicant respectfully asserts that the Kojima and Shigeo publications, either alone or in combination, do not disclose or suggest the subject matter of independent claims 1, 14, and 16, as amended. As claims 2-11 and 15 depend directly or indirectly from claims 1 and 14, respectively, the Kojima and Shigeo publications also do not disclose or suggest the subject matter of these dependent claims. Therefore, Applicant requests that the rejection of claims 1-11, 13, 15, and 16 be withdrawn.

The Examiner stated that the Kojima publication in view of the Shigeo publication and further in view of the Yasui patent renders obvious claim 12. In response, Applicant respectfully asserts that the Kojima publication, the Shigeo publication, and the Yasui patent, either alone or in combination, do not disclose the subject matter of claim 12. Therefore, Applicant requests that the rejection of this claim be withdrawn.

* * * * *

Serial No. 10/657,142 Reply to Office Action Mailed: December 28, 2006 Attorney Docket No. 056208.52762US

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #056208.52762US).

Respectfully submitted,

March 28, 2007

/Michael H. JACOBS, Reg. No. 41,870/ James F. McKeown Registration No. 25,406 Michael H. Jacobs Registration No. 41,870

CROWELL & MORING LLP Intellectual Property Group P.O. Box 14300 Washington, DC 20044-4300 Telephone No.: (202) 624-2500 Facsimile No.: (202) 628-8844

JFM:MHJ:msy